AP Calc AB Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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WS Assessment

Target 2:

determining limits

**I can:**

* Determine the limits of functions using limit theorems
* Determine the limits of functions using equivalent expressions for the function or the squeeze theorem.

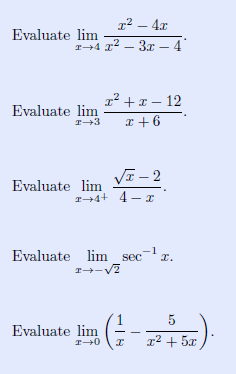
Unit 1: Limits and Continuity

HW Target 2

Unit 1 Progress Check MCQ Part B

Limits by algebraic simplification: The substitution rule cannot be used to evaluate if c is not in the domain of the function f (for instance, if it produces a zero in the denominator).

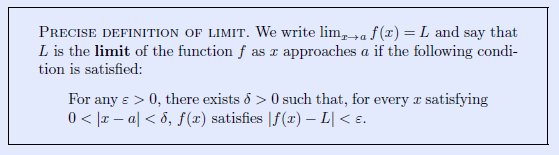
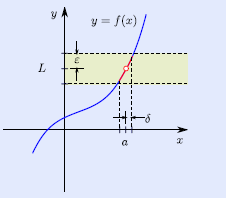


For the following, find and write the limit of the functions, then use graphing calculator to confirm it.

f(x) = , x → 2 g(x) = , x → 2

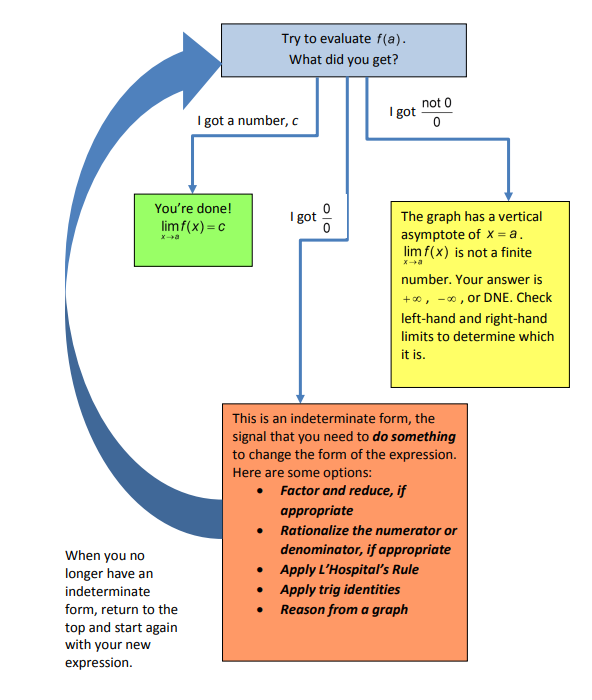
h(x) = , x → 5 k(x) = , x → 1

Find the following limits. Hint divide





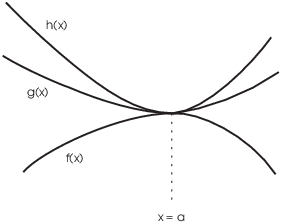
Find the following limits.

Limit strategy flow chart

**The Squeeze Theorem (Sandwich)**

If g(x) ≤ f(x) ≤ h(x) for all x ≠ c in some interval about c and

then



Use

Given g(x) = sin(π/2(x+2))+3 and h(x) = −14x3−3/2x2−9/4x+3 If function f(x) that satisfies

 g(x) ≤ f(x) ≤ h(x) for −2< x < 0 . Find . Graph to show

Given g(x) = -x2 – 2x +3 and h(x) = ½x2  + x + 13/2 If function f(x) that satisfies

 g(x) ≤ f(x) ≤ h(x) for −2< x < 0 . Find . Graph to stamp

Use Squeeze theorem to find Hint g(x) = cos(x) and h(x) = 1 as the sandwich

Find Graph to illustrate and stamp. Hint -x2 < x2 sin(1/x) < x2

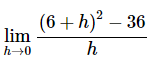
Use squeeze theorem to show that

Graph

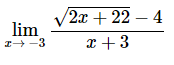
Assessment

Show work













Graph